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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,568	11/21/2003	Kaname Miyazaki	245780US3RD	8451
22850 7590 05/18/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER LEWIS, BEN	
			ART UNIT 1745	PAPER NUMBER
			NOTIFICATION DATE 05/18/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/717,568

Applicant(s)

MIYAZAKI ET AL.

Examiner

Ben Lewis

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1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 7-13, 15 and 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Applicant's election of the Species II readable on Claims 1-6 and 14 in the reply filed on March 21st 2007 is acknowledged. Because applicant did not distinctly and specifically point out any errors in the restriction requirement, the election has been treated as an election without traverse (MPEP j 8 18.03(a)).

Claims 7-13 and 15-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al. (U.S. Patent No. 4,562,123) in view of Wilson et al. (U.S. Patent No. 6,808,838 B1).

With respect to claims 1, 4, 5 and 14, Shimizu et al. disclose a liquid fuel cell (title) wherein in the state shown in FIG. 1, methanol contained in the methanol tank **27** flows out from the hole **28a** "outlet flow path" to enter the fuel chamber **25** through the hole **29a** and is sucked by the sucking strips **26** to be charged up to the upper part of the fuel chamber. Gas produced at the methanol electrode **23** as a result of the electrochemical reaction flows out from the hole **29b** to enter the methanol tank **27** through the hole **28b** "inlet flow path" and is vented to the exterior of the fuel cell through a gas vent port **31** "exhaust flow path" having gas-liquid separating means (Col 9 lines 20-35). Shimizu et al. does not specifically teach an absorbent member housed in the container. However, Wilson et al. disclose a direct methanol fuel cell and system (title) wherein, Wilson et al. disclose a fuel tank "container" **64** with absorbent (Col 9 lines 30-45) (See Fig. 9).

Wilson et al. also teach that in the simplest embodiment, the superabsorbent material modulates the access of neat methanol from a fuel tank to the anode plenum to prevent it from flooding the structure. For example, if the fuel tank is positioned overhead, the methanol supply will be at a somewhat higher head pressure and would readily pass through a conventional non-selective absorbent and flood the anode plenum (Col 8 lines 55-67). Therefore it would have been obvious at the time the invention was made to incorporate the absorbent of Wilson et al. into the fuel tank of Shimizu et al. because Wilson et al. teach that the superabsorbent material modulates the access of methanol from a fuel tank to the fuel cell to prevent it from flooding the structure (Col 8 lines 55-67).

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The absorbent member of Wilson et al. is porous therefore it contains cavities "space".

With respect to claim 2, Shimizu et al. teach that gas produced at the methanol electrode **23** as a result of the electrochemical reaction flows out from the hole **29b** to enter the methanol tank **27** through the hole **28b** "inlet flow path" and is vented to the exterior of the fuel cell through a gas vent port **31** "exhaust flow path" having gas-liquid separating means (Col 9 lines 20-35).

With respect to claim 6, the absorbent member of Wilson et al. possesses cavities "space" which also occupies the center of the container of Wilson et al. (See Fig. 9).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ben Lewis whose telephone number is 571-272-6481. The examiner can normally be reached on 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ben Lewis

Patent Examiner
Art Unit 1745


SUSYTSANG-FOSTER
PRIMARY EXAMINER

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/21/03, 5/7/04, 6/3/05, 10/7/05.